Economy Continues Decline; PMI Slips to 47.0%; Price Index Highest in 16 Months

AUGUST REPORT

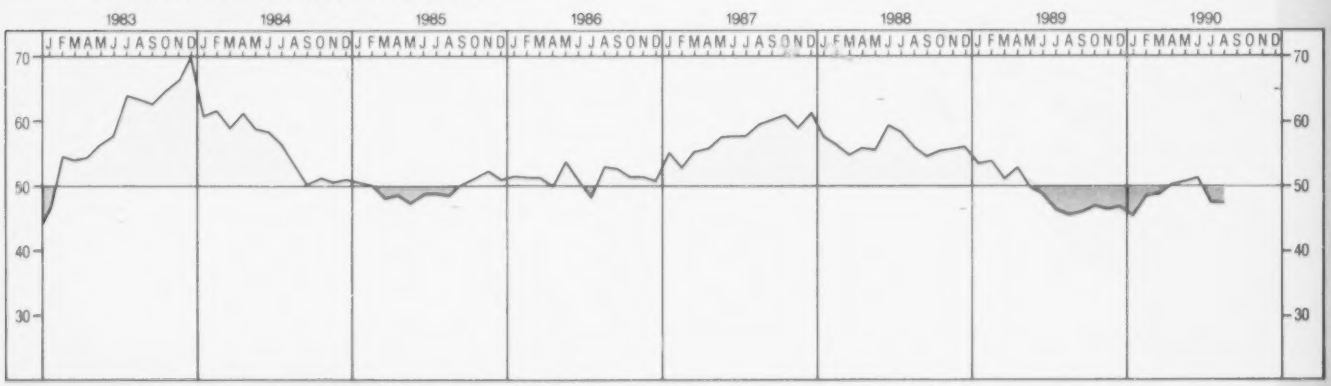
Analysis by the National Association of Purchasing Management Business Survey Committee; chair, Robert J. Bretz, C.P.M., director of materials management, Pitney Bowes, Inc.

The manufacturing economy continued to decline in August, for the second consecutive month, say the nation's purchasing executives in their latest **Report on Business**. The Production Index declined for the first time since January 1990. New Orders declined for the second consecutive month. New Export Orders continued to increase in August, although at the slowest pace since February 1990. Imports declined for the fourth consecutive month. Employment declined in August for the 18th consecutive month at the greatest rate since January 1990.

Supplier Deliveries were slower in August. The Price Index rose sharply, largely as a consequence of the Iraqi invasion, and is the highest since April 1989. Inventories decreased, although at a slightly lesser rate than in July, as some purchasers indicated building their inventories selectively to delay the impact of announced price increases.

The **Report** was issued by Robert J. Bretz, C.P.M., chairman of the National Association of Purchasing Management's Business Survey Committee, and director of materials management at Pitney Bowes, Inc. Said Bretz, "The manufacturing economy declined further in August. The sharp decline in New Orders in July resulted in the first decline in Production in seven months. Continued weakness in New Orders suggests a further decline unless purchasers can artificially stimulate the economy by building inventories in petroleum-related commodities in order to assure availability and to delay anticipated price increases."

PURCHASING MANAGERS' INDEX



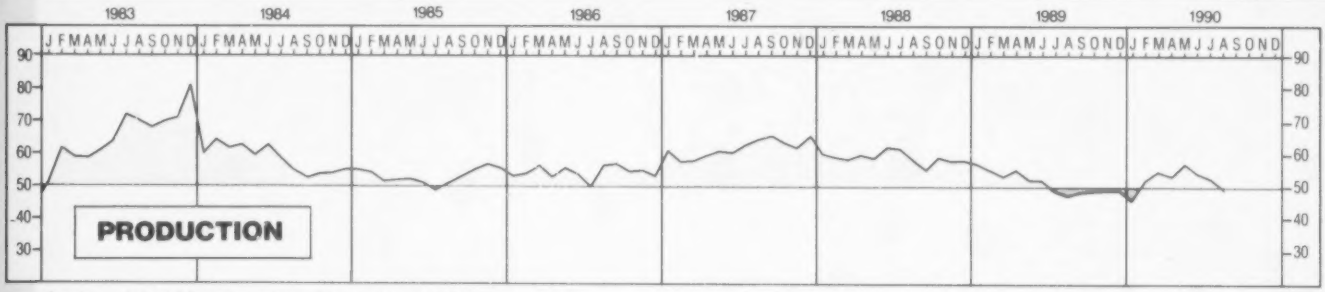
Peak — July 1981; Trough — November 1982.

PURCHASING MANAGERS' INDEX (PMI)

August '89	45.5	March '90	48.8
September '89	46.0	April '90	50.2
October '89	46.9	May '90	50.7
November '89	46.4	June '90	51.1
December '89	46.7	July '90	47.4
January '90	45.2	August '90	47.0
February '90	48.3		

The **Purchasing Managers' Index** (PMI) slipped to 47.0%, down from 47.4% in July and the second consecutive decline after three previous months of continuous increases. A reading below 50 indicates that the manufacturing economy is generally declining; above 50, that it is generally expanding. Bretz added, "If the PMI remains unchanged at the August level for the balance of the year, then past experience indicates this would be consistent with real GNP growth of about 1.3% for 1990. The PMI would have to fall below 44% before indicating a decline in real GNP."

BUSINESS



Peak — July 1981; Trough — November 1982.

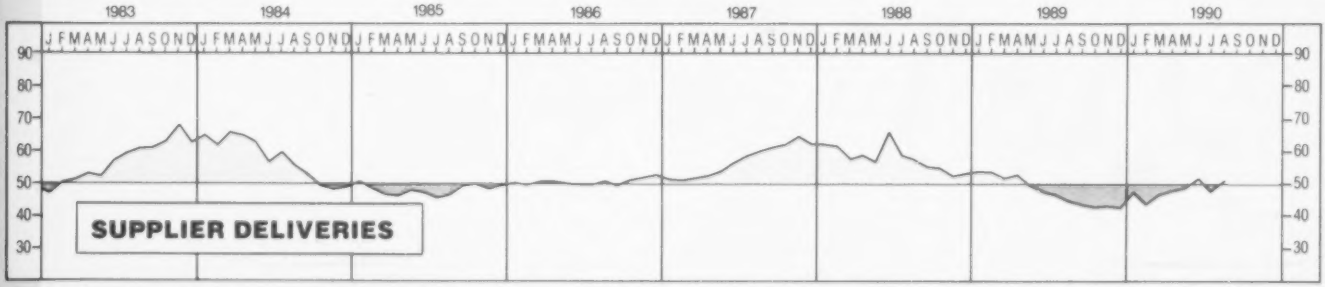
The sharp drop in New Orders in July resulted in the first decline in Production in seven months. The Production Index declined in August to 48.5%, down from 52.1% in July and the lowest since January 1990 (45.4%). The continued weakness in New Orders in August does not augur well for an increase in Production in September.

Production	%Better	%Same	%Worse	Net	Index
August 1990	20	54	26	– 6	48.5
July 1990	19	58	23	– 4	52.1
June 1990	25	58	17	+ 8	53.9
May 1990	25	62	13	+12	56.3

Peak — July 1981; Trough — November 1982.

New Orders declined in August for the second consecutive month, although at a somewhat lesser rate than last month. The New Orders Index rose to 46.4%, up from 46.2% in July. Except for July, the 46.4% is the lowest since January 1990 (45.8%).

New Orders	%Better	%Same	%Worse	Net	Index
August 1990	21	49	30	– 9	46.4
July 1990	19	53	28	– 9	46.2
Junel 1990	28	49	23	+ 5	54.9
May 1990	31	47	22	+ 9	54.8



Peak — July 1981; Trough — November 1982.

Supplier Deliveries were slower in August for the second time in three months. The Supplier Deliveries Index rose to 51.1%, up from 47.3% in July but similar to June (51.2%). Nevertheless, there was little change from July in the number of commodities reported in short supply.

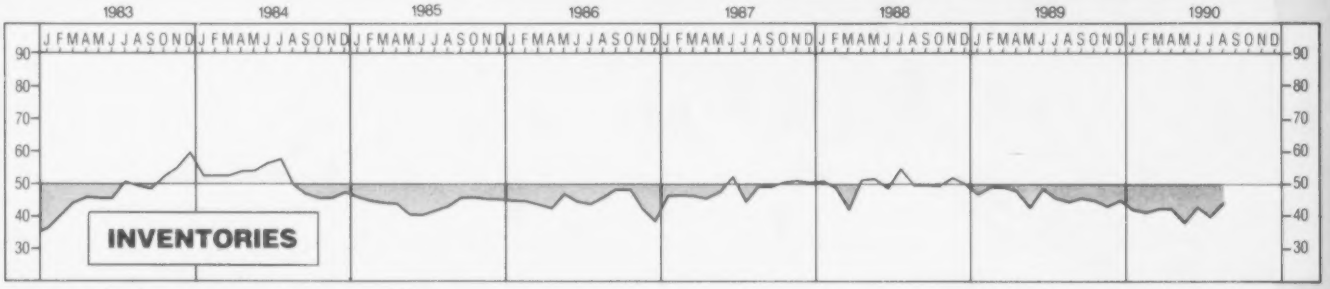
Supplier Deliveries	%Slower	%Same	%Faster	Net	Index
August 1990	7	87	6	+ 1	51.1
July 1990	6	83	11	– 5	47.3
June 1990	9	81	10	– 1	51.2
May 1990	8	81	11	– 3	48.6

IN SHORT SUPPLY

Acetonitrile — Used to remove tars, phenols, and coloring matter from certain petroleum hydrocarbons and to extract fatty acids from animal and vegetable oils; **Acrylic Acid** — Used in manufacturing plastics; **Bearings** — 25th consecutive month, a consequence of anti-dumping suits; **Electric Motors** — 12th time in 17 months; **Caustic Soda/Soda Ash** — 39th consecutive month (used heavily in paper-making, petroleum refining, and soap-making); **Freon** — 2nd consecutive month (used as a refrigerant and as an aerosol propellant); **Styrene** — 2nd consecutive month (used chiefly in making synthetic rubber, plastic resins, and plastic); **Offset Printing Paper** — 3rd consecutive month; **Silicon Wafers** — 5th consecutive month (used in making semiconductors and integrated circuits); and **Lemon Juice.**

UP IN PRICE

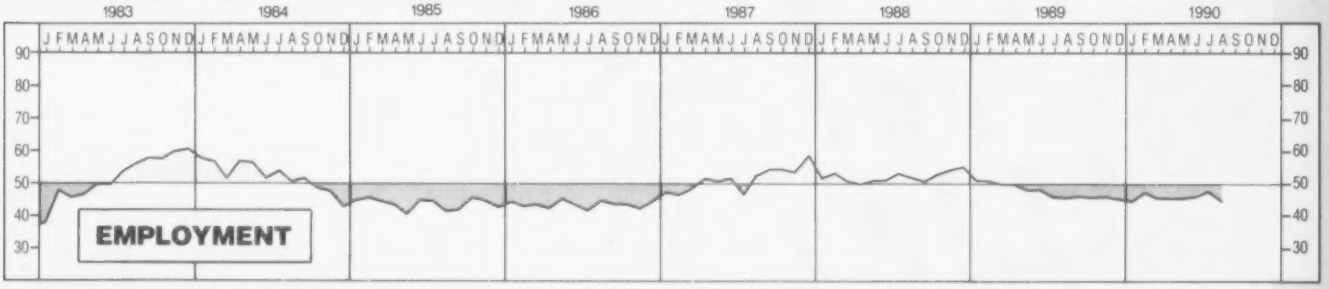
Aluminum — Equal reports of price decreases; **Copper** — 4th consecutive month, some reports of price decreases; **Lead** — 2nd consecutive month (used heavily in making paints, petroleum pipe, and batteries); **Nickel** — After being reported down in price in June; **Rhodium** — 2nd consecutive month (used heavily as an alloy with platinum, a corrosion-resistant electroplate, and in making high-reflectivity mirrors); **Steel Scrap**; **Offset Printing Paper** — 3rd consecutive month; price increase announced for September 1; **Bearings** — 23rd time in 26 months, a consequence of anti-dumping suits; **Caustic Soda/Soda Ash** — 45th consecutive month, primarily as a consequence of lower demand for co-produced chlorine by paper-makers; **Phthalic Anhydride** — Used heavily in making artificial resins, benzoic acid, and phthalates; **Polyvinyl Alcohol** — Used heavily in molding plastic compounds, surface coatings, textile sizing, inks for plastics and glass, in pharmaceuticals and cosmetics; **Propylene** — Used heavily in making polypropylene plastic & other chemicals; **Propylene Glycol** — Used as a nontoxic antifreeze, a solvent for pharmaceuticals, a substitute for ethylene glycol, an emulsifier



Peak — July 1981; Trough — November 1982.

Inventories declined for the 21st consecutive month, although at a lesser rate than in the previous seven months. The Inventories Index rose to 44.1%, up significantly from last month (39.3%) and the highest since December 1989 (44.5%). Some members reported bringing in selected commodities earlier than needed in order to delay the impact of announced price increases.

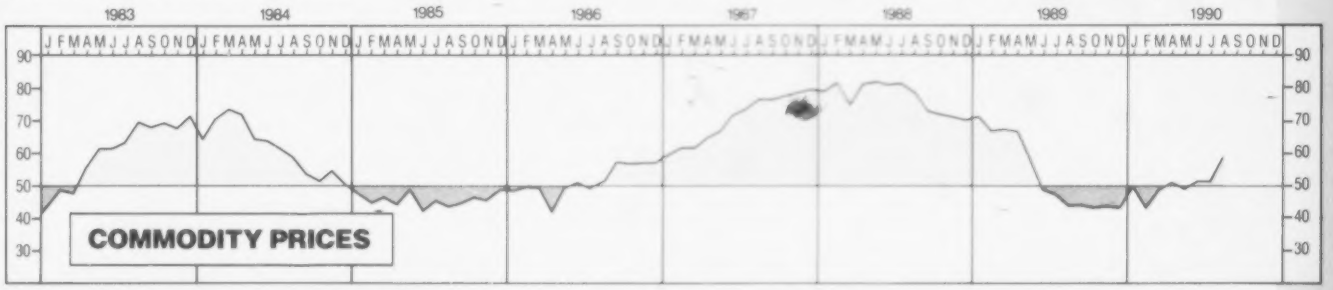
Inventories	%Higher	%Same	%Lower	Net	Index
August 1990	16	57	27	-11	44.1
July 1990	10	55	35	-25	39.3
June 1990	16	54	30	-14	42.9
May 1990	11	58	31	-20	37.8



Peak — July 1981; Trough — November 1982.

Employment decreased in August for the 18th consecutive month at a slightly greater rate than in July. The Employment Index fell to 44.1%, down from 47.2% last month. This is the lowest rate since January 1990 (also 44.1%) and reflects manufacturers adjustment in employment levels to mirror the decline in business.

Employment	%Higher	%Same	%Lower	Net	Index
August 1990	9	68	23	-14	44.1
July 1990	13	70	17	- 4	47.2
June 1990	13	68	19	- 6	45.9
May 1990	13	67	20	- 7	45.5



Peak — July 1981; Trough — November 1982.

Prices rose in August as a consequence of anticipated, if not actual, price increases in crude oil and petrochemical feed stocks. Industries feeling the brunt of the August price increases were plastics, primary metals, paper, petroleum, and chemicals. The Price Index rose to 58.2%. Purchasers expressed concern that in spite of no apparent shortages, suppliers will take advantage of future uncertainties by raising prices further.

Prices	%Higher	%Same	%Lower	Net	Index
August 1990	22	68	10	+12	58.2
July 1990	12	77	11	+ 1	50.9
June 1990	17	70	13	+ 4	50.9
May 1990	11	75	14	- 3	48.5

in foods, and in making synthetic resins; **Solvents; Styrene** — Used chiefly in making synthetic rubber, plastic resins, and plastic; **Diesel Fuel; Gasoline; Fuel Oil** — After being reported down in price in July for the 6th consecutive month; **Petroleum Products; Propane** — After being reported down in price in July; **Lemon Juice; Orange Juice; Peanuts; Soybean Oil** — 2nd consecutive month.

DOWN IN PRICE

Aluminum — 17th consecutive month, but equal reports of price increases; **Magnesium** — 2nd consecutive month (used heavily as a constituent of light alloys for manufacturing precision instruments); **Platinum; Steel** — After being reported up in price in July for 2nd consecutive month; **Zinc** — After being reported up in price in July for 5th consecutive month; **Lumber** — 3rd consecutive month; **Linerboard** — 6th consecutive month (used heavily in making corrugated shipping cartons); **Wood Pulp** — Used in making all grades of paper & linerboard; **Corrugated Shipping Containers** — 7th consecutive month; **Antifreeze; Ethylene** — 4th consecutive month (used heavily in making ethylene oxide, plastic resins, and glycols); **Ethylene Glycol** — 2nd consecutive month (used heavily in making antifreeze, brake fluid, plastic paint, and ink); **Glycerine** — 2nd consecutive month (used in various ways, especially as a sweetener in confectioneries, cosmetics, soaps, and tobacco); **Methanol** — 3rd consecutive month; after being reported up in price in April 1990 for 4th consecutive month; **Phenol** — 12th time in 15 months; **Plastic Resins** — 8th consecutive month; **Polyethylene; Polyester Yarn; DRAMS** — 3rd consecutive month; **Natural Gas** — 7th consecutive month; **Corn** — After being reported up in price in July; **Black Pepper; Sugar.**

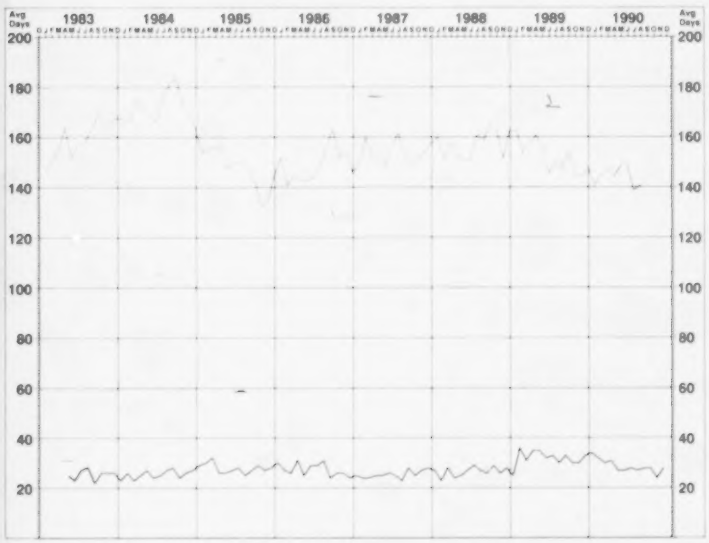
BUYING POLICY

Overall lead times did not change significantly in August for any of the three categories of purchases.

Lead times for Capital Expenditures increased slightly in August to 141 days, up from 139 days in July, which was the lowest since November 1985 (134 days).

The average lead time for Production Materials decreased to 48 days, down slightly from 49 days in July and at the average for the past four months.

The average lead time for Maintenance, Repair and Operating (MRO) Supplies was 25 days in August, up two days from last month.

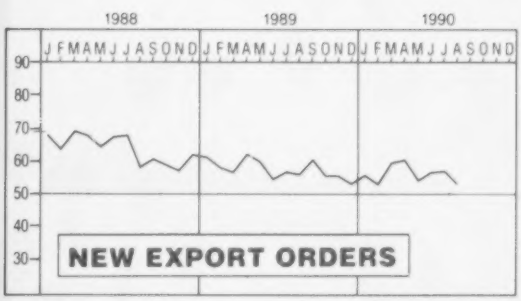


PERCENT REPORTING

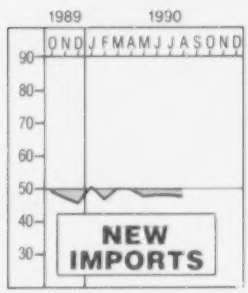
Capital Expenditures	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer	1 Year + Days	Avg. Days
August	13	5	16	23	29	16	141
July	14	4	13	22	33	14	139
June	11	5	14	20	33	17	149
May	10	7	10	22	35	16	149

Production Materials	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer	1 Year + Days	Avg. Days
August	20	37	29	10	3	1	48
July	20	38	28	10	2	2	49
June	19	40	28	9	3	1	47
May	17	40	27	13	2	1	48

MRO Supplies	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer	1 Year + Days	Avg. Days
August	46	40	10	3	1	0	25
July	43	44	11	2	0	0	23
June	38	47	12	2	1	0	27
May	41	45	10	3	0	1	28



New Export Orders increased in August for the 32nd consecutive month, but at a slower pace than last month. The New Export Order Index, not yet seasonally adjusted, registered 53.0%, down from 57.0% in July and the lowest since February 1990 (also 53.0%). The number of members exporting rose slightly to 75% from 74% last month.



Imports declined for the fourth consecutive month. The Imports Index, not yet seasonally adjusted, slipped to 47.5%, down slightly from 48.0% in July. The number of members importing rose to 77%, up from 76% last month.

New Export Orders	%Exporting	%Better	%Same	%Worse	Net	Index
August 1990	75	16	74	10	+ 6	53.0
July 1990	74	24	66	10	+14	57.0
June 1990	77	20	73	7	+13	56.5
May 1990	76	17	74	9	+ 8	54.0

Imports	%Importing	%Higher	%Same	%Lower	Net	Index
August 1990	77	7	81	12	- 5	47.5
July 1990	76	9	78	13	- 4	48.0
June 1990	79	8	80	12	- 4	48.0
May 1990	76	8	79	13	- 5	47.5

DATA AND METHOD OF PRESENTATION

The **Report on Business** is based on data compiled from monthly replies to questions asked of purchasing executives in over 300 industrial companies. Membership of the Business Survey Committee is diversified geographically, based on value added by state, and by Standard Industrial Classification (SIC) category, based on each industry's contribution to Gross National Product (GNP). Twenty industries in 50 states are represented on the committee.

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured (New Orders, New Export Orders, Imports, Production, Supplier Deliveries (formerly Vendor Deliveries), Inventories, Employment and Prices), this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Supplier Deliveries), and the negative economic direction (lower, worse and faster for Supplier Deliveries), and the diffusion index.

Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive). The resulting single index number is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various institutional arrangements and differences attributable to non-moveable holidays. All seasonal adjustment factors are supplied by the U.S. Department of Commerce and are subject annually to relatively minor changes when conditions warrant them. A sufficient history is not yet available for the New Export Orders and Imports Indexes to determine seasonal adjustment factors. Therefore, these two indexes are not seasonally adjusted. The Purchasing Managers' Index (PMI) is a composite index based on the seasonally adjusted diffusion indexes for five of the indicators (New Orders, Production, Supplier Deliveries, Inventories and Employment) with varying weights applied.

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. An index reading above 50% indicates that the economy is generally expanding; below 50%, that the economy is generally declining. The distance from 50% is indicative of the strength of the expansion or decline.

Responses to Buying Policy reflect the percent reporting the current months lead time, the approximate weighted number of days ahead for which commitments are made for Production Materials, Capital Expenditures and Maintenance, Repair and Operating (MRO) Supplies, expressed as hand-to-mouth (5 days), 30 days, 60 days, 90 days, 6 months (180 days), a year or more (360 days) and the weighted average number of days. These responses are raw data, never revised and not seasonally adjusted since there is no significant seasonal pattern.